REMARKS

Claim Rejections – 35 U.S.C. § 102

Claims 1-4, 8-11, and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Scheffer et al. US 5,459,495.

Responsive to the rejection to claims 1-4, 8-11, and 15-18 under 35 U.S.C. 102(b) as being anticipated by Scheffer et al. '495, Applicants hereby otherwise traverse this rejection. As such, Applicants submit that claims 1-4, 8-11, and 15-18 are now in condition for allowance.

With respect to claim 1, as originally filed, recites in parts:

A double waveform method for driving a transmission line originally at an initial voltage to a final voltage, comprising the steps of:

putting a first voltage, a second voltage, a first voltage maintenance period and a second voltage maintenance period according to the initial voltage and the final voltage;

.... putting up the final voltage on the transmission line.

Similarly, claim 8, as originally filed, recites in parts:

A double waveform method for driving a transmission line originally at an initial voltage to a final voltage, comprising the steps of:

... putting up a final voltage on the transmission line.

Likewise, claim 15, as originally filed, recites in parts:

A double waveform method for driving a transmission line originally at an initial voltage to a final voltage, comprising the steps of:

> ...putting up the first voltage on the transmission line for a time period equal to the first voltage maintenance period;
>
> putting up the second voltage on the transmission line for a time period equal to the second voltage maintenance period; and
>
> putting up the final voltage on the transmission line ...

Applicants submit that the present method, as set forth in claims 1, 8 and 15, is neither taught, disclosed nor suggested by Scheffer et al. '495 fails to teach, disclose or suggest at least "A double waveform method for driving a transmission line originally at an initial voltage to a final voltage .....putting up the final voltage on the transmission line" that is required by the present method, as set forth in claims 1, 8 and 15. The Examiner interprets that "the column signal with S+D for the time period of f is put on the display panel which acts as a transmission line" of Scheffer et al. '495 (Page 3 of the instant Office Action), as reading on the step "putting up the first voltage on the transmission line for a time period equal to the first voltage maintenance period" as set forth in claims 1, 8 and 15. The Examiner also interprets that "the column signal with S-D for the time period of 1-f is put on the display panel which acts as a transmission line" of Scheffer et al. '495 (Page 3 of the instant Office Action), as reading on the step "putting up the second voltage on the transmission line for a time period equal to the second

voltage maintenance period" as set forth in claims 1, 8 and 15. Applicants do not agree with such interpretation and set forth the reasons as followed.

In the FIG.3A of the Scheffer et al. '495, a "pulse-width" gray scale addressing system is introduced (Col.5, Lines 8-9) for obtaining different **gray level** by using a pulse-width-modulation technique. By using the pulse-width-modulation technique, during the row select time interval, Δt, the amplitude of the signal "seen" by the pixel is S+D for the fraction, f, and S-D for the remaining portion, 1-f, of the time interval (Col.5, Lines 13-16). By adjusting the fraction f, or by adjusting the pulse width, different "rms" is obtained.

As also found in Col.5, Lines 9-16

> "a column signal of amplitude -D, corresponding to an "on" pixel, is applied for only a fraction, f, of the row select time interval, Δt, and a column signal of an amplitude of +D, corresponding to an "off" pixel, is applied for the remaining fraction, 1-f. During the row select time interval, Δt, the amplitude of the signal "seen" by the pixel is S+D for the fraction, f, and S-D for the remaining portion, 1-f, of the time interval (FIG. 3A)."

As also found in Col.5, Lines 18-21

> "the rms voltage across the pixel averaged over one frame period is intermediate between the rms voltage when the pixels is 'on' and the rms voltage when the pixel is 'off'"

The Office Action incorrectly interprets the rms voltage averaged over one frame period as reading on the final voltage as claimed in the invention. Applicants do not agree with such interpretation and respectfully traverse the rejection. In the present invention, the double waveform method is used to drive a transmission line originally at an initial voltage to a final voltage, which is capable of increasing transmission speed while maintaining waveform stability and accuracy (Para.[0004], Summary of the Invention).

However, the fact is such a proposed step of putting up the rms voltage of Scheffer et al. '495 does not really happen. What Scheffer et al. '495 teaches is **a voltage S+D and a voltage S-D sequentially applied during a frame period**, thus the rms voltage can be "seen" as an average voltage thereof. The Scheffer et al. '495 teaches a "pulse-width" gray scale addressing system is introduced (Col.5, Lines 8-9) for obtaining different **gray level** by using a pulse-width-modulation technique. By using the pulse-width-modulation technique, during the row select time interval, Δt, the amplitude of the signal "seen" by the pixel is S+D for the fraction, f, and S-D for the remaining portion, 1-f, of the time interval (Col.5, Lines 13-16). The rms voltage is only a calculated or statistical result of S+D and S-D in accordance with their lasting time. Such an rms voltage does not even exist indeed as a voltage level.

Therefore, Scheffer et al. '495 fails to teach, suggest or disclose a step of "putting up the final voltage on the transmission line" that is required by the present method, as set forth in claims 1, 8 and 15. Accordingly, claims 1, 8 and 15 as originally filed, are submitted to be novel and unobvious over Scheffer et al. '495, or any of the other cited references, taken alone or in combination, and should be allowed (MPEP §2131).

If independent claim 1 is allowable over the prior art of record, then its dependent claims 2-4 are allowable as a matter of law, because these dependent claims contain all features of their respective independent claim 1. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

If independent claim 8 is allowable over the prior art of record, then its dependent claims 9-11 are allowable as a matter of law, because these dependent claims contain all features of their respective independent claim 8. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

If independent claim 15 is allowable over the prior art of record, then its dependent claims 16-18 are allowable as a matter of law, because these dependent claims contain all features of their respective independent claim 15. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

Claim Rejections – 35 U.S.C. § 103

The Office Action rejected claims 5-7, 12-14 and 19-21 under 35 U.S.C. 103(a) as being unpatentable over Scheffer et al. '485 in view of Chang et al. US 6,611,247.

Applicants submit that claims 5-7 depend from claim 1; claims 12-14 depend from claim 8; and claims 19-21 depend from claim 15, and if claims 1, 8 and 15 are allowable, claims 5-7, 12-14 and 19-21 should also be allowable.

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CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1-21 are in proper condition for allowance and an action to such effect is earnestly solicited. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,
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